



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/705,564	11/03/2000	Rodric C. Fan	M-8813 US	6675

7590 10/19/2007
MACPHERSON, KWOK, CHEN & HEID, LP
1762 TECHNOLOGY DRIVE
SUITE 226
SAN JOSE, CA 95110

EXAMINER

FOX, BRYAN J

ART UNIT	PAPER NUMBER
----------	--------------

2617

MAIL DATE	DELIVERY MODE
-----------	---------------

10/19/2007

PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No. 09/705,564	Applicant(s) FAN, RODRIC C.	
	Examiner Bryan J. Fox	Art Unit 2617	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 12 July 2007.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-8, 17-26, 28, 31 and 32 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-8, 17-26, 28, 31 and 32 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date: _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date: _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Continued Examination Under 37 CFR 1.114

A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on July 12, 2007 has been entered.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

Claims 1, 2, 4-8, 31 and 32 are rejected under 35 U.S.C. 103(a) as being unpatentable over Morita et al (5,864,753) in view of Beckmann et al (US 2007/0142945).

Regarding claim 1, Morita et al disclose a radio station tuning system comprising a radio receiver with an electronic tuner 16, a communication unit 18, and a navigation unit 20 that includes a GPS receiver or the like (see column 3, lines 6-14 and figure 1), which reads on the claimed, "A location-specific frequency tuning system comprising: a location unit; a wireless interface to a wide area network." The system receives input from the driver with a microphone (see column 3, lines 30-47), which reads on the claimed, "A user interface." The radio receiver with an electronic tuner 16 (see figure 1 and column 3, lines 6-14) reads on the claimed, "A mobile receiving unit tuned to receive a broadcast signal based on a selected frequency provided as input to the mobile receiving unit." A controller 14 receives data on a current position of the vehicle from the navigation unit 20, has access to the base station 200, and sends the base station the request message from the speech recognizing unit 12, the current position of the vehicle and an identification code of the vehicle (see column 3, lines 30-47), which reads on the claimed, "A frequency selection unit coupled to said mobile receiving unit, said frequency selection unit receiving a current location from the location unit." Morita further discloses it is also possible to specify radio stations offering programs of desired kinds using a display and a selector switch (see column 4, lines 40-46), however, Morita fails to expressly disclose selecting a plurality of frequencies from the set of frequencies of broadcast signals based on the strength of said plurality of frequencies, arranging

said plurality of frequencies by subject content categories and geographic areas corresponding to said plurality of frequencies.

In a similar field of endeavor, Beckmann et al disclose a system where recorded on external storage may be information about typically either AM broadcast or FM broadcast radio stations available to the reproduction device through tuner. Typically, availability is determined by a combination of proximity to and power of the broadcast signal. The list may be assembled by the device automatically scanning the broadcast frequency spectrum and assemble a list of available radio stations by noting the frequency and by measuring strengths of receives signals. Information about each radio station can also be collected and stored, including station call letters and station format (see paragraph 42), which reads on the claimed, "receiving tuning data comprising a set of frequencies of broadcast signals corresponding to different geographic regions through the wireless interface at the current location from a database on the wide area network, selecting a plurality of frequencies from the set of frequencies of broadcast signals based on the strength of said plurality of frequencies." A common user interface screen is caused to appear on external display, with some of the portions of the screen having different identifying legends. Source selection region has graphical regions enabling the user to select the audio signal source. The information displayed in the available selection region may be ordered based on any of the metadata values. For example, the list of FM stations can be ordered by station ID, broadcast frequency or by category (see paragraphs 54-55), which reads on the claimed, "arranging said plurality of frequencies by subject content categories and

geographic areas corresponding to said plurality of frequencies, generating a menu comprising each of said plurality of arranged frequencies and descriptions of specific broadcast format information corresponding to each of said plurality of arranged frequencies, outputting said menu to a user through said user interface.” When a button is depressed by the user, the control electronics circuitry causes the tuner to tune to the frequency associated with the preset button (see paragraph 51), which reads on the claimed, “selecting one of said plurality of arranged frequencies based on a user selection, and tuning said mobile receiving unit to said selected arranged frequency.”

It would have been obvious to a person of ordinary skill in the art at the time of the invention to modify Morita et al with Beckmann et al to include the above menu system in order to provide improved interactive sound reproducing as suggested by Beckmann et al (see paragraph 4).

Regarding claim 2, Morita et al fail to expressly disclose the selected frequency is the transmission frequency of a frequency modulated broadcast station.

In a similar field of endeavor, Beckmann et al disclose the use of an AM/FM tuner (see paragraph 27).

It would have been obvious to a person of ordinary skill in the art at the time of the invention to modify Morita et al with Beckmann et al to include the above AM/FM tuner in order to take advantage of a readily available infrastructure.

Regarding claims 4 and 5, the combination of Morita et al and Beckmann et al further discloses a user interface electrically coupled to receive from the frequency selection unit data arranged as radio signal content categories and to output a menu of

categories to a listener (see Morita et al col. 4, lines 29-37) wherein at least a portion of the menu is output on a visual display (see Morita et al col. 4, lines 39-43, col. 5, lines 23-26).

Regarding claim 6, the combination of Morita et al and Beckmann et al further discloses wherein at least a portion of the menu is audibly output by the interface (see col. 21-23).

Regarding claims 7 and 8, the combination of Morita et al and Beckmann et al further discloses a user interface electrically coupled to receive and relay to the frequency selection unit a user command to select a particular content category in an arrangement of radio signal content categories stored in the frequency selection unit wherein the command is a verbal command (see Morita et al col. 3, lines 15-55).

Regarding claim 31, the combination of Morita et al and Beckmann et al further discloses wherein the location information is provided using global positioning system information (see Morita et al col. 3, lines 37-43).

Regarding claim 32, the combination of Morita et al and Beckmann et al disclose the communication unit transmitting the data to the base station via a vehicle telephone line (see Morita et al col. 3, lines 15-23) meets providing location information using cellular wireless communications system information.

Claim 2 is rejected under 35 U.S.C. 103(a) as being unpatentable over Morita et al in view of Beckmann et al as applied to claim 1 above, and further in view of Lee.

Regarding claim 2, the combination of Morita et al and Beckmann et al fails to expressly disclose the tuning data comprises satellite transmission radio frequencies.

In a similar field of endeavor, Lee teaches a radio receiving system having the capability of frequency modulation transmission frequencies (see col. 10, lines 52-63, col. 11, lines 5-19, col. 12, lines 13-22), and satellite transmissions using satellite transmission frequencies (see col. 10, 49-59).

It would have been obvious to a person of ordinary skill in the art at the time of the invention to modify the combination of Morita et al and Beckmann et al with Lee to include the above use of satellite in order to provide personalized information services through available communication networks that cover a wide area such as frequency modulation, satellite and cellular communications as taught by Lee.

Claims 17, 18, 20-26 and 28 are rejected under 35 U.S.C. 103(a) as being unpatentable over Morita et al. (5,864,753) in view of Beckmann et al (US 2007/0142945), and further in view of Ishikawa et al.

Regarding claim 17, Morita et al disclose a radio station tuning system comprising a radio receiver with an electronic tuner 16, a communication unit 18, and a navigation unit 20 that includes a GPS receiver or the like (see column 3, lines 6-14 and figure 1), which reads on the claimed, "A method of tuning location-specific frequency tuning data in a mobile signal receiving unit using a frequency selection unit coupled to said mobile signal receiving unit." A controller 14 receives data on a current position of the vehicle from the navigation unit 20, has access to the base station 200, and sends

the base station the request message from the speech recognizing unit 12, the current position of the vehicle and an identification code of the vehicle (see column 3, lines 30-47), which reads on the claimed, "Receiving geographic position information from a location unit, said geographic position information identifying a present geographic position of said mobile signal receiving unit." Morita further discloses it is also possible to specify radio stations offering programs of desired kinds using a display and a selector switch (see column 4, lines 40-46), however, Morita fails to expressly disclose selecting a plurality of frequencies from the set of frequencies of broadcast signals based on the strength of said plurality of frequencies, arranging said plurality of frequencies by subject content categories and geographic areas corresponding to said plurality of frequencies.

In a similar field of endeavor, Beckmann et al disclose a system where recorded on external storage may be information about typically either AM broadcast or FM broadcast radio stations available to the reproduction device through tuner. Typically, availability is determined by a combination of proximity to and power of the broadcast signal. The list may be assembled by the device automatically scanning the broadcast frequency spectrum and assemble a list of available radio stations by noting the frequency and by measuring strengths of receives signals. Information about each radio station can also be collected and stored, including station call letters and station format (see paragraph 42), and the user may enter music format, such as type of music (see paragraph 58, which reads on the claimed, "receiving tuning data from a remote database comprising a set of frequencies of broadcast signals corresponding to

Art Unit: 2617

different geographic frequencies; receiving user-selected content category information; determining a plurality of reception areas in which said system is located based on said geographic position information and said tuning data; selecting localized tuning data based on signal strength for a plurality of available frequencies having a signal reception area corresponding to at least one of said plurality of reception areas, said localized tuning data corresponding to signals having several broadcast forms; arranging said localized tuning data by subject content categories associated with said plurality of available frequencies and geographic areas corresponding to each of said reception areas," and, "said selected localized content information comprising a plurality of localized content-specific frequencies corresponding to said user-selected content category information," and, "said selected localized content information further comprising a description of specific broadcast format information for each of said plurality of localized content-specific frequencies; generating a menu listing said selected localized content information; outputting said menu to a user through a user interface; prompting said user for a user selection." When a button is depressed by the user, the control electronics circuitry causes the tuner to tune to the frequency associated with the preset button (see paragraph 51), which reads on the claimed, "selecting one of said plurality of localized content-specific frequencies based on a user selection; and tuning said mobile signal receiving unit to said selected localized content-specific frequency."

It would have been obvious to a person of ordinary skill in the art at the time of the invention to modify Morita et al with Beckmann et al to include the above menu

system in order to provide improved interactive sound reproducing as suggested by Beckmann et al (see paragraph 4). The combination of Morita et al and Beckmann et al fails to disclose selecting content data when said system moves to a new reception area among said plurality of reception areas.

In a similar field of endeavor, Ishikawa et al disclose when a when it is judged that the level of a signal being received is judged is not higher than a predetermined threshold level, a new broadcasting station is re-selected in order to select an appropriate station, which prevents a user from listening to a degraded station signal (see col. 4, lines 11-40, col. 8, line 6 to col. 9, line 6), which reads on the claimed, "selecting localized content information...when said system moves to a new reception area."

It would have been obvious to a person of ordinary skill in the art at the time of the invention to modify the combination of Morita et al and Beckmann et al with Ishikawa et al to include the above reselection procedure in order to ensure the selection of high quality broadcasting stations for listening as taught by Ishikawa.

Regarding claim 18, Morita et al fail to expressly disclose the selected frequency is the transmission frequency of a frequency modulated broadcast station.

In a similar field of endeavor, Beckmann et al disclose the use of an AM/FM tuner (see paragraph 27).

It would have been obvious to a person of ordinary skill in the art at the time of the invention to modify Morita et al with Beckmann et al to include the above AM/M tuner in order to take advantage of a readily available infrastructure. The combination

of Morita et al and Beckmann et al fails to disclose selecting content data when said system moves to a new reception area among said plurality of reception areas.

In a similar field of endeavor, Ishikawa et al disclose when a when it is judged that the level of a signal being received is judged is not higher than a predetermined threshold level, a new broadcasting station is re-selected in order to select an appropriate station, which prevents a user from listening to a degraded station signal (see col. 4, lines 11-40, col. 8, line 6 to col. 9, line 6), which reads on the claimed, "selecting localized content information...when said system moves to a new reception area."

It would have been obvious to a person of ordinary skill in the art at the time of the invention to modify the combination of Morita et al and Beckmann et al with Ishikawa et al to include the above reselection procedure in order to ensure the selection of high quality broadcasting stations for listening as taught by Ishikawa.

Regarding claims 20, 21 and 22, the combination of Morita et al and Beckmann et al further discloses a user interface electrically coupled to receive from the frequency selection unit data arranged as radio signal content categories and to output a menu of categories to a listener (see Morita et al col. 4, lines 29-37) wherein at least a portion of the menu is output on a visual display (see Morita et al col. 4, lines 39-43, col. 5, lines 23-26).

Regarding claim 23, Morita et al fail to expressly disclose said user-selected content category information is provided by a system user selecting one or more

content categories via the Internet and wherein the tuning data is provided by downloading via the Internet.

In a similar field of endeavor, Beckmann et al disclose the use of web radio (see paragraph 55) and the use of commercially available listings such as vTuner.com (see paragraph 43), which reads on the claimed, "said user-selected content category information is provided by a system user selecting one or more content categories via the Internet and wherein the tuning data is provided by downloading via the Internet."

It would have been obvious to a person of ordinary skill in the art at the time of the invention to modify Morita et al with Beckmann et al to include the above use of web radio in order to take advantage of a readily available infrastructure.

Regarding claim 24, Morita et al fail to expressly disclose the user selects the one or more content categories via the World-Wide Web.

In a similar field of endeavor, Beckmann et al disclose the use of web radio (see paragraph 55) and the use of commercially available listings such as vTuner.com (see paragraph 43), which reads on the claimed, "said user-selected content category information is provided by a system user selecting one or more content categories via the Internet and wherein the tuning data is provided by downloading via the Internet."

It would have been obvious to a person of ordinary skill in the art at the time of the invention to modify Morita et al with Beckmann et al to include the above use of web radio in order to take advantage of a readily available infrastructure.

Regarding claim 25, the combination of Morita et al, Beckmann et al and Ishikawa et al further discloses wherein the location information is provided using global positioning system information (see Morita et al col. 3, lines 37-43).

Regarding claim 26, the combination of Morita et al, Beckmann et al and Ishikawa et al disclose the communication unit transmitting the data to the base station via a vehicle telephone line (see Morita et al col. 3, lines 15-23) meets providing location information using cellular wireless communications system information.

Regarding claim 28, the combination of Morita et al, Beckmann et al and Ishikawa et al discloses the radio station tuning system being configured to automatically has access to a base station when the vehicle is not running in an area where the desired program is receivable (see Morita et al col. 4, lines 9-15), reads on the particular frequency is selected based on content category of the broadcast signal being received prior to the change in signal reception condition.

Claim 19 is rejected under 35 U.S.C. 103(a) as being unpatentable over Morita et al in view of Beckamnn et al and Ishikawa et al as applied to claim 17 above, and further in view of Lee.

Regarding claim 19, the combination of Morita et al, Beckmann et al and Ishikawa et al fails to expressly disclose the tuning data comprises satellite transmission radio frequencies.

In a similar field of endeavor, Lee teaches a radio receiving system having the capability of frequency modulation transmission frequencies (see col. 10, lines 52-63,

col. 11, lines 5-19, col. 12, lines 13-22), and satellite transmissions using satellite transmission frequencies (see col. 10, 49-59).

It would have been obvious to a person of ordinary skill in the art at the time of the invention to modify the combination of Morita et al, Beckmann et al and Ishikawa et al with Lee to include the above use of satellite in order to provide personalized information services through available communication networks that cover a wide area such as frequency modulation, satellite and cellular communications as taught by Lee.

Response to Arguments

Applicant's arguments with respect to claims 1-8, 17-26, 28, 31 and 32 have been considered but are moot in view of the new ground(s) of rejection.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Bryan J. Fox whose telephone number is (571) 272-7908. The examiner can normally be reached on Monday through Friday 9am - 5pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Charles N. Appiah can be reached on (571) 272-7904. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

Bryan Fox
September 26, 2007


CHARLES N. APPIAH
SUPERVISORY PATENT EXAMINER